



National Transportation Safety Board

Operational Issues

Operations
Group Chairman's
presentation



Preflight Activity

- Flight crew reviewed weather-related information before departure
- Forecasted weather was 1/2-mile visibility with 4 to 7 inches of snow expected
- ATIS and NOTAM reports indicated runways were wet and had been sanded and chemically treated

En Route Phase

- Flight crew determined “good” braking action required for landing
- No braking action reports initially available
- Runway condition information not current
- Two “good” braking action reports later received

Approach Phase

- Approach to runway 13 was stable and met crosswind and tailwind limitations
- Visibility met minimums for approach
- Captain saw runway before decision altitude
- Crewmembers' observation of runway not consistent with information provided to them

Landing Phase

- Reverse thrust initiated before nose gear touchdown
- Reverse thrust EPR increased rapidly, reaching 2.07 left and 1.91 right
- Reverse thrust target of 1.3 EPR exceeded

Rudder Blanking

- Reverse thrust above 1.3 EPR could degrade rudder effectiveness
- First officer recognized effects of rudder blanking
- Efforts to regain directional control were too late

Contaminated Runway Operations

- Delta trained 1.3 EPR on contaminated runways
- No required callout for EPR exceedances



National Transportation Safety Board